

Claims

What is claimed is:

1. A method for formatting an object file comprising:
generating a trace object code from trace source code; and
processing component information of the trace object code to generate the object file, wherein the object file comprises a linear sequence of bytes comprising a file header, a plurality of section headers, and a plurality of section data entries.
2. The method of claim 1, further comprising:
transferring a tracing framework enabling using the object file.
3. The method of claim 1, further comprising:
saving the object file in a persistent data store.
4. The method of claim 1, further comprising:
parsing object code to obtain component information.
5. The method of claim 1, wherein the trace source code comprises at least one probe description comprising an optional predicate and an action.
6. The method of claim 1, wherein processing component information comprises:
dividing section data representing component information into loadable and unloadable data.
7. The method of claim 1, wherein processing component information comprises:
encoding section data required by the tracing framework prior to other section data.

8. The method of claim 1, wherein processing component information comprises:
assigning a unique identifier for each section header in the plurality of section headers.
9. The method of claim 1, wherein processing component information comprises:
associating each section header in the plurality of section headers with a data element, wherein the data element defines a data type of the section referenced by each section header.
10. The method of claim 1, wherein processing component information comprises:
defining a particular section type to refer to the enabling of at least one probe.
11. The method of claim 10, wherein an arbitrary number of the particular section type appear in the object file.
12. The method of claim 1, wherein processing component information comprises:
dividing section data representing component information into loadable and unloadable data;
encoding section data required by the tracing framework prior to other section data;
assigning a unique identifier for each section header in the plurality of section headers;
associating each section header in the plurality of section headers with a data element, wherein the data element defines a data type of the section referenced by each section header; and
defining a particular section type to refer to the enabling of at least one probe, wherein an arbitrary number of the particular section type appear in the object file.

13. A data structure defining an object file comprising:
a file header;
a list of section headers appended to the file header; and
a plurality of section data, wherein the section data comprises loadable section data and non-loadable section data,
wherein, the object file comprises the file header, the list of section headers, the plurality of section data and is generated by processing component information of a trace object code.
14. The data structure of claim 13, wherein processing component information comprises:
dividing section data representing component information into loadable and unloadable data.
15. The data structure of claim 13, wherein processing component information comprises:
encoding section data required by the tracing framework prior to other section data.
16. The data structure of claim 13, wherein processing component information comprises:
assigning a unique identifier for each section header in the plurality of section headers.
17. The data structure of claim 13, wherein processing component information comprises:
associating each section header in the plurality of section headers with a data element, wherein the data element defines a data type of the section referenced by each section header.

18. The data structure of claim 13, wherein processing component information comprises:
 - defining a particular section type to refer to the enabling of at least one probe.
19. The data structure of claim 18, wherein an arbitrary number of the particular section type appear in the object file.
20. The data structure of claim 13, wherein processing component information comprises:
 - dividing section data representing component information into loadable and unloadable data;
 - encoding section data required by the tracing framework prior to other section data;
 - assigning a unique identifier for each section header in the plurality of section headers;
 - associating each section header in the plurality of section headers with a data element, wherein the data element defines a data type of the section referenced by each section header; and
 - defining a particular section type to refer to the enabling of at least one probe, wherein an arbitrary number of the particular section type appear in the object file.
21. A computer system for formatting an object file comprising:
 - a processor;
 - a memory;
 - a storage device; and
 - software instructions stored in the memory for enabling the computer system to:
 - generate a trace object code from trace source code; and

process component information of the trace object code to generate the object file, wherein the object file comprises a linear sequence of bytes comprising a file header, a plurality of section headers, and a plurality of section data entries.

22. The computer system of claim 21, wherein processing component information comprises software instructions stored in the memory for enabling the computer system to:

divide section data representing component information into loadable and unloadable data;

encode section data required by the tracing framework prior to other section data;

assign a unique identifier for each section header in the plurality of section headers;

associate each section header in the plurality of section headers with a data element, wherein the data element defines a data type of the section referenced by each section header; and

define a particular section type to refer to the enabling of at least one probe.

23. The computer system of claim 21, further comprising software instructions stored in the memory for enabling the computer system to:

transfer a tracing framework enabling using the object file.

24. The computer system of claim 21, further comprising software instructions stored in the memory for enabling the computer system to:

save the object file in a persistent data store.

25. The computer system of claim 21, further comprising software instructions stored in the memory for enabling the computer system to:

parse object code to obtain component information.